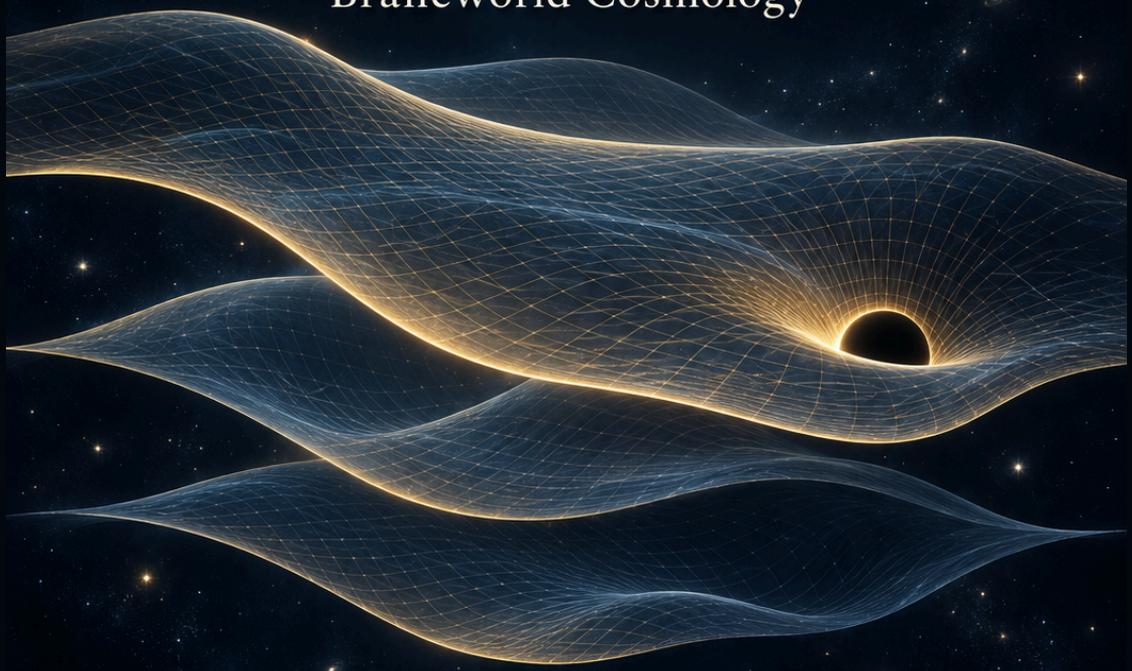
A RESEARCH MONOGRAPH

IDENTIFIABLE BULK GEOMETRY

Dynamical Completion and Observational Limits in Braneworld Cosmology



Mohammed F. A. Alghenaim

FIRST EDITION • 2026

IDENTIFIABLE BULK GEOMETRY

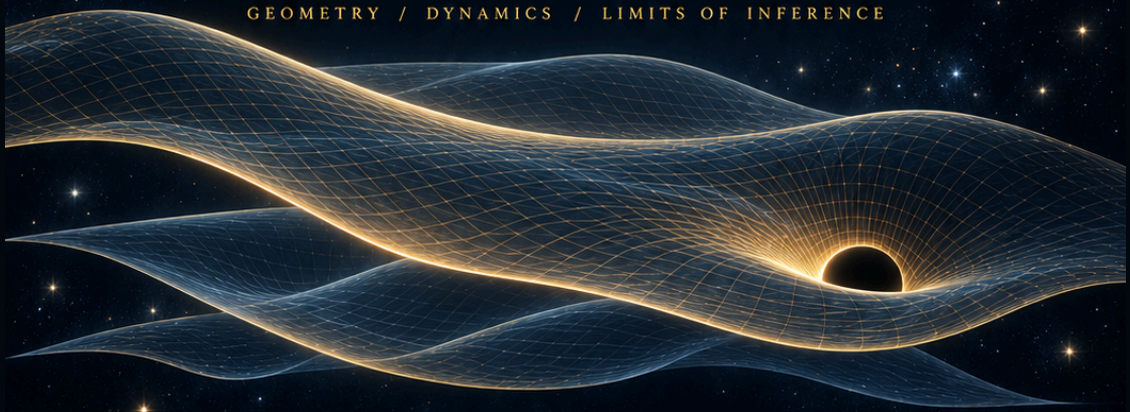
What can cosmic history reveal about hidden geometry?

Cosmological histories can constrain a model while leaving some of its physical parameters undetermined. This book asks which features of a higher-dimensional bulk remain identifiable when matter calibration and vacuum normalization are uncertain.

Fourteen chapters connect geodesic measurements, sound histories, invariant geometry, statistical reconstruction and kinetic-field dynamics. Worked examples distinguish mathematical identification from observational evidence and examine the physical limits of the model.

Five appendices, eight scientific figures, a glossary and a subject index support the analysis. A computational companion provides code and numerical data for the calculations made for this edition.

GEOMETRY / DYNAMICS / LIMITS OF INFERENCE



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DATA & CODE

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